the following claims therefor:

--8. An electrostatic corrector for eliminating chromatic aberration of particle lenses having a straight optical axis and an electrostatic quadrupole for allocation to an objective lens, said electrostatic corrector comprising:

two corrector pieces positioned behind said electrostatic quadrupole and along said straight optical axis in a direction of radiation, said two corrector pieces having quadrupole fields rotatable 90° about said straight optical axis in relation to one another, with rotation able to occur so that a first astigmatic intermediate image of a first section lies in a first corrector piece of said two corrector pieces and a second astigmatic intermediate image perpendicular thereto, of a second section, lies in a second corrector piece of said two corrector pieces, with an additional electrostatic quadrupole being located on an output side, with each of said two corrector pieces having three electrical quadrupole fields with said electrostatic quadrupoles being overlaid with a circular lens field.

9. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 8, wherein said two corrector pieces have symmetrical constructions.

10. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 8,

wherein said two corrector pieces have center planes and symmetrical extensions of said quadrupole fields with respect to said center planes.

11. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 8, wherein said quadrupole fields of said two corrector pieces are overlaid by at least one quadrupole field.

12. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 11, further comprising octopole fields arranged in a region of said first astigmatic intermediate image and said second astigmatic intermediate region.

13. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 11, wherein a single multipole element generates both a quadrupole and an octopole filed.

14. The electrostatic corrector for eliminating chromatic aberration of particle lenses according to Claim 11, further comprising a third corrector piece connected downstream in a direction of said straight optical axis, said third corrector piece having a spatial arrangement and intensity of its circular lens fields and quadrupole fields so as to be a mirror symmetrical relative to a center point of said second corrector piece.--